

nSeat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm-Semester-V May-2012 Examination

Subject code: 250002

Subject Name: Pharmaceutical Microbiology - I

Time: 02:30pm to 5:30pm

Date: 17-05-2012

Total Marks: 80

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Describe the scope of microbiology. **06**
(b) Describe various methods of classifying bacteria. Give morphological classification of bacteria. **05**
(c) Write taxonomy of Rickettsia, Actinomycetes. **05**
- Q.2** (a) Write principle & working of electron microscope. **06**
(b) Describe growth curve of bacteria with labeled diagram. **05**
(c) Describe various methods used for isolation of microorganism. Compare its advantages & disadvantages. **05**
- Q.3** (a) Write morphological classification of virus. Describe structure & composition of virus. **06**
(b) Write detail note on spirochetes. **05**
(c) Write short note on fungi. **05**
- Q.4** (a) Enlist various evaluation tests for disinfectants. Describe the Rideal Walker test for phenol. Write its merits & demerits. **06**
(b) Describe different staining techniques used in light microscopy. **05**
(c) Write a note on validation of filtration sterilization. **05**
- Q.5** (a) Classify various methods of sterilization. Describe working principle and applications of autoclave. **06**
(b) Explain D, Z & F values significance in validation of sterilization. **05**
(c) Write a short note on Aseptic Techniques. **05**
- Q. 6** (a) Describe in brief various methods used for counting & cultivation of bacteria. **06**
(b) Write down ideal requirements of disinfectant. Write mode of action of Phenol, Heavy metal, aldehyde. **05**
(c) Write significance of sterility testing in pharmaceuticals. Describe methods for sterility testing for surgical dressings. **05**
- Q. 7** (a) Discuss importance aspects of sampling & inactivation of antibacterial samples in sterility testing. **06**
(b) Describe various chemical & biological sterilization indicators. **05**
(c) Enumerate various methods used for microbiological Assay. Discuss two level factorial assay. **05**
